
वस्त्रादि — सतत तंतु पॉलिएमाइड (नाइलान)
के धागे — विशिष्टि
(पहला पुनरीक्षण)

**Textiles — Continuous Filament
Polyamide (Nylon) Yarn —
Specification
(First Revision)**

ICS 59.080.20

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भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Man-Made Fibres, Cotton and their Products Sectional Committee had been approved by the Textiles Division Council.

This standard was originally published in 1975 and has again been revised to incorporate the following changes:

1. All Amendments have been incorporated
2. BIS certification marking clause has been modified.
3. References to Indian Standards have been updated.
4. Sampling clause has been added

The composition of the Committee responsible for the formulation of this standard is given in Annex B.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

**TEXTILES — CONTINUOUS FILAMENT POLYAMIDE
(NYLON) YARN — SPECIFICATION**
(*First Revision*)

1 SCOPE

This standard prescribes the requirements of continuous filament, textile polyamide (nylon) yarn used for textile and other general purposes, commercially known as 'flat yarn'.

2 REFERENCES

2.1 The standards listed in Annex A contain provisions, which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated in Annex A.

3 REQUIREMENTS

3.1 The material shall conform to the requirements specified in Table 1.

3.2 Conditioning and Testing — The test specimens shall be conditioned for 24 hours in accordance with IS 6359 and tested in the standard atmosphere of $27 \pm 2^\circ\text{C}$ temperature and 65 ± 2 percent relative humidity.

4 MARKING

4.1 Each cone or cop of yarn shall be marked by attaching a label with the following:

- a) Tex (denier) of yarn;
- b) Manufacturer's name, initials or trade-mark; and
- c) Mass of package.

4.2 The cases containing yarn shall be marked with the following:

- a) Name of the material;
- b) Tex (denier) of yarn;
- c) Gross mass;
- d) Net mass; and
- e) Name of manufacturer, initials and trade-mark.

4.2.1 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the product(s) may be marked with the Standard Mark.

5 PACKING

5.1 Unless otherwise specified, the yarn shall be packed in accordance with the procedure laid down in IS 2195.

8 SAMPLING

8.1 Unless otherwise specified, the sampling criteria as specified in IS 7703 (Part 4) shall be followed.

Table 1 Requirements for Polyamide (Nylon) Yarn
(Clause 3.1)

Sl No.	Characteristic	Requirement		Method of Test
		Monofilament	Multifilament	
(1)	(2)	(3)	(4)	(5)
i)	Denier, deviation, percent (lot average)	± 4	± 3 for 2.2 to 55.5 tex (2.0 to 50 d) ± 2.5 for above 5.5 tex (above 50 d)	IS 7703 (Part1)
ii)	Tenacity, g/tex (or g/d) (lot average), <i>Min</i>	45 (5.0)	40.5 (4.5)	IS 7703 (Part2)
iii)	Percentage elongation at break, percent	40 to 50	35 to 45	IS 7703 (Part2)
iv)	Mean linear irregularity or evenness (U%), <i>Max</i>	1.5	1.5	IS 7703 (Part5)
v)	Tolerance on commercial mass, percent	± 1	± 1	IS 7703 (Part3)
vi)	Conventional allowance, percent, <i>Max</i>	5.75	5.75	-
vii)	Oil content, percent, <i>Max</i>	1.5	1.5	-
viii)	Broken filaments	No visible broken filament on the body of the package.		Visual
ix)	Undrawn yarn	No nubs having a length of 2 mm or more		(see NOTE)
x)	Boiling water shrinkage, percent	15 ± 2	15 ± 2	IS 17087
xii)	Hot air shrinkage, percent	18 ± 2	18 ± 2	IS 17088

NOTE — From the yarn under test, make a hose on a knitting machine. Dye the hose to a deep shade.
Any undrawn yarn would be clearly visible as specks or irregularly dyed patch.

ANNEX A
(Clause 2.1)

LIST OF REFERRED INDIAN STANDARDS

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
2195 : 1964	Code for inland packaging of man-made fibre fabrics and man-made fibre yarns	7703 (Part 3) : 1991	Methods of test for man-made fibre continuous filament flat yarn — Part 3 Commercial mass (<i>first revision</i>)
4905 : 2015	Random sampling and randomization procedures (<i>first revision</i>)	7703 (Part 4) : 1981	Methods for test for continuous filament polyester and polyamide flat yarn — Part 4 Sampling
6359 : 1971	Method for conditioning of textiles	7703 (Part 5) : 1987	Methods of test for continuous filament polyester and polyamide flat yarn — Part 5 Unevenness percentage
7703 (Part 1) : 1990	Methods of test for man-made fibres continuous filament flat yarn — Part 1 Linear density (<i>first revision</i>)	17087 : 2019	Textiles – Manmade filament yarns — Determination of shrinkage in boiling water
7703 (Part 2) : 1990	Methods of test for man-made fibres continuous filament flat yarn — Part 2 Dry and wet tenacity and elongation (<i>first revision</i>)	17088 : 2019	Textiles — Synthetic filament yarns — Determination of shrinkage in dry-hot air (After treatment)

ANNEX B

(Foreword)

COMMITTEE COMPOSITION

Man-Made Fibers, Cotton and their Products Sectional Committee,
TXD 31

<i>Organization</i>	<i>Representative(s)</i>
ICAR – Central Institute for Research on Cotton Technology, Mumbai	DR P. K. MANDHYAN (Chairman)
Ahmedabad Textile Industry's Research Association, Ahmedabad	SHRIMATI DEEPALI PLAWAT SHRI JIGAR DAVE (<i>Alternate</i>)
Association of Synthetic Fibre Industries, New Delhi	SHRI M. S. VERMA
AYM Syntex Ltd, Dadra and Nagar Haveli	SHRI ARNAB SAMANTHA SHRI SAUGATA DAS (<i>Alternate</i>)
Confederation of Indian Textile Industry, New Delhi	SHRI D. K. NAIR SHRI SHAJU MANGALAM (<i>Alternate</i>)
Consumer Guidance Society of India, Mumbai	DR SITARAM DIXIT DR M. S. KAMATH (<i>Alternate</i>)
Cotton Association of India, Mumbai	SECRETARY
Defence Materials and Stores Research and Development Establishment, Kanpur	SHRI ASHOK KUMAR YADAV SHRI BISWA RANJAN DAS (<i>Alternate</i>)
Grasim Industries Limited, Vadodara	SHRI AJAY SARDANA DR ROHITASVA KUMAR (<i>Alternate</i>)
ICAR – Central Institute for Research on Cotton Technology, Mumbai	DR SENTHIL KUMAR DR A ARPUTHARAJ (<i>Alternate</i>)
JCT Limited, Phagwara	SHRI KHUSHWINDER SINGH DHILLON SHRI ARWINDER SINGH (<i>Alternate</i>)
North India Textile Mills Association, Chandigarh	SHRI SANJAY GARG SHRI SIDHARTHA KHANNA (<i>Alternate</i>)
Northern India Textile Research Association, Ghaziabad	SHRI SANJEEV SHUKLA SHRIMATI NEHA KAPIL (<i>Alternate</i>)
Office of Textile Commissioner, Mumbai	SHRI SOURABH KULKARNI SHRI PRANAV PARASHAR (<i>Alternate</i>)

<i>Organization</i>	<i>Representative(s)</i>
Reliance Industries Limited, Mumbai	SHRI AJAY GUPTA SHRI KESHAV P PAAREEK (<i>Alternate</i>)
Textile Committee, Mumbai	SHRI J. D. BARMAN SHRI P. N. S. SIVAKUMAR (<i>Alternate</i>)
The Bombay Textile Research Association, Mumbai	SHRI R. A. SHAIKH SHRIMATI PRAGATI KULKARNI (<i>Alternate</i>)
The Cotton Corporation of India Ltd, Navi Mumbai	SHRI P. N. PILLEWAR SHRI V. K. SINHA (<i>Alternate</i>)
The Cotton Textile Export Promotion Council, Mumbai	SHRI SIDDARTHA RAJGOPAL
The Southern India Mills Association, Coimbatore	SHRI D. SURESH ANAND KUMAR
The Synthetic & Rayon Textile Export Promotion Council, Mumbai	SHRI S. BALARAJU
The Synthetic and Art Silk Mills Research Association, Mumbai	DR MANISHA MATHUR SHRIMATI ASHWINI A. SUDAM (<i>Alternate</i>)
Veermata Jijabai Technological Institute, Mumbai	DR (SMT) SURANJANA GANGOPADHYAY
In personal capacity (<i>D-618, Maruti Paradise, Sector - 15, CBD-Belapur, Navi Mumbai - 400614.Maharashtra.</i>)	SHRI A. SATHEESAN
BIS Directorate General	SHRI J. K. GUPTA, Scientist E and Head (Textiles) [Representing Director General (<i>Ex-officio</i>)]

Member Secretary
SHRI MAYUR KATIYAR
Scientist 'B' (Textiles), BIS

Bureau of Indian Standards

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Review of Indian Standards

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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